ABSTRACT

The object of the present invention is to provide a production method wherein synthesis of a cyclic organic silicon compound similar to oxa-silacyclopentanes is completed in a single-step reaction. It is also to provide an organic silicon resin having an alcoholic hydroxyl group, which is capable of easily controlling its construction and is longitudinally stable.

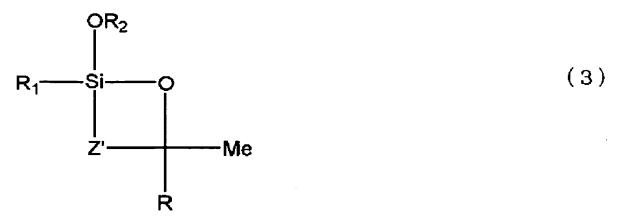
The means for solving is to produce the cyclic organic silicon compound represented by the formula (3) below by reacting an olefin represented by the formula (1) below and an alkoxysilane represented by the formula (2) below in the presence of a catalyst comprising a transition metal.

$$Z \xrightarrow{\mathsf{OH}} \mathsf{Me}$$

(In the formula, Z is alkenyl group having carbon atoms from 2 to 5 where the terminal carbon atom forms a C=C bond, R is methyl group or hydrogen atom, and Me is methyl group.)

$$R_1$$
— Si — OR_2 (2)

(In the formula, R_1 is alkyl group or alkoxyl group, having carbon atoms from 1 to 3, and R_2 is alkyl group having carbon atoms from 1 to 3.)



(In the formula, Z' is alkylene group having carbon atoms from 2 to 5.)

And it is an organic silicon resin having an alcoholic hydroxyl group obtained by performing hydrolysis and condensation of a cyclic organic silicon compound represented by the formula (3) above, or of a mixture of this and a polyfunctional alkoxysilane.